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# Mediating role of job stress between work-family conflict, work-leisure conflict, and employees' perception of service quality in the hotel industry in France

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## ABSTRACT

This study investigates the relationships among work-family conflict (WFC), work-leisure conflict (WLC), job stress, and quality of service. This study examines the mediating role of WLC between WFC and job stress. Also, it tests the mediator effect of job stress between WFC, WLC, and quality of service. Data were collected from employees in interaction with customers (648) in the hotel industry in France. The results indicate that WFC and WLC have a positive influence on job stress. The analyses of indirect effects tests based on a bootstrap analysis (Preacher & Hayes, 2004) showed an indirect effect between WFC and job stress. Similarly, the results demonstrated that job stress mediates the relationship between WFC, WLC, and quality of service. The results of the study provide implications for managing employees in the hospitality and tourism industries.

## KEYWORDS

Job stress; quality of service;  
work-family conflict (WFC);  
work-leisure conflict (WLC)

## Introduction

In recent years, economic and social changes and increased competition among companies have caused an increase in terms of costs, flexibility, quality, and time. Thus, developing a strategy for quality of goods, services, and customer relationship is a way to build a competitive advantage. Given the importance of customer-employee interaction within the industry service in general and in the hospitality industry in particular, staff who are in interactions with customers in the hospitality industry have a key role to play in ensuring good service quality (Haynes & Fryer, 2000). Likewise, employee attitudes and behaviors may influence hotel guest attitudes (Lin, Wong, & Ho, 2013).

Kim, Shin, and Umbreit (2007) indicated that working conditions in the hotel industry are difficult and stressful. Other authors investigated irregular working hours, low wages, and excessive workload in the hospitality sector, including hotel industry (Babin & Boles, 1998; Faulkner & Patiar, 1997; Karatepe, 2008; Karatepe

& Aleshinloye, 2009; Mansour, 2012; Zohar, 1994). Similarly, Parent-Thirion, Fernández Macías, Hurley, and Vermeylen (2007) show that about 75% of workers in the hospitality industry indicate the need to perform their work under pressure; 66% must meet strict deadlines; and about 48% do not have enough time to do their job. In the same vein, Lin et al. (2013) suggest that poor working conditions prevent workers in the hospitality industry to have enough time for leisure activities. Namasivayam and Zhao (2007) and Yavas, Babakus, and Karatepe (2008) highlight the difficulty for staff in the hospitality industry to combine work and family life. These researchers indicate that work-family conflict leads to more stress at work, thus affecting their performance and customers' evaluations (Molpus, 2003; Netemeyer, James, & Chris, 2005).

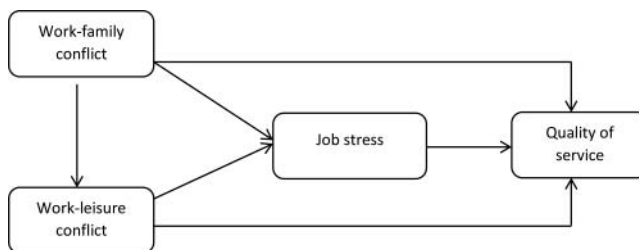
The prevalence of job stress is widely acknowledged in the hotel and catering industry (Kim et al., 2007; Wildes, 2007). Furthermore, the direct effects of work-family conflict (WFC) on job stress or burnout have been extensively explored. However, to date, the effects of WFC on job stress, employee performance, and customer outcomes are unreliable (Netemeyer et al., 2005). Indeed, working conditions can “also require much time and energy of service employees, leaving less opportunity to engage in leisure activities in their time off” (Wong & Lin, 2007). These researchers have extended research from work-non-work conflict to work-leisure conflict, which occurs when the demands at work interfere with the ability of employees to participate in leisure activities.

Studying work-leisure conflict is at the core of research in the field of hospitality and tourism research (Lin, Huang, Yang, & Chiang, 2014), as it concerns clients as well as employees. “The quest to balance leisure and work, including how to do it and maintain standards of excellence continues to be a topic of interest” (Taneja, 2013, p. 113). This is one of the reasons we conducted this study. Moreover, the attitudes and behaviors of hotel employees may affect customer satisfaction and loyalty (Lin et al., 2013). It is indeed important to examine the potential effects from WFC and work-leisure conflict (WLC)<sup>1</sup> on job stress and on quality of service in the hotel industry, as an essential segment of hospitality industry.

The purpose of this study was to investigate the difficulty between work and private life, including family responsibilities and free time for leisure activities, experienced by employees in the hospitality industry in France. More specifically, the research objectives were to: (1) identify if WFC and WLC contribute to employee stress in the hospitality industry; (2) test the effect of WFC on job stress with WLC as a mediator; (3) verify the direct effect of stress on quality of service; and (4) examine the mediating role of job stress between WFC and WLC and employees' perception of quality of service.

## Literature review

Figure 1 presents two models of the relationships between WFC, WLC, job stress, and quality of service. The model is derived from the theory of conservation of



**Figure 1.** Research model.

resources (Hobfoll, 1989, 2002). According to this theory, individuals seek to obtain and maintain resources (Grandey & Cronpazano, 1999). A potential or actual loss of resources creates stress or burnout.

### Work-family conflict

The conflict between work and non-work roles takes place when the roles are unbalanced at work and in life (Greenhaus & Beutell, 1985). Work-family conflict is a form of inter-role conflict according to which the demands created by the job interfere with family responsibilities (Netemeyer et al., 2005).

### Work-leisure conflict

As an extension of work-family conflict, work-leisure conflict means that employees spend more time and energy on work roles than they spend on other aspects of life; that consumes energy and diminishes the time and prospects for leisure (Wong & Lin, 2007). Sheng-Hshiung, Ying-Wen, and Huei-Ju (2012) define work-leisure conflict as a form of inter-role conflict that occurs when pressure or requests for work roles and leisure roles are mutually incompatible.

### Job stress

Two basic approaches of stress at work are distinguished in the literature: the transactional approach (the models of Lazarus & Folkman, 1984 and Siegrist, 1996) and the interactionist approach (the model of Karasek, 1979, and the person-environment fit model of French, Caplan, & Harrison, 1982). Recently, another approach has focused on the factors that enable individuals to deal with the demands of work situations. This is the theory of conservation of resources of Hobfoll (1989). This theory defines psychological stress as “a reaction to the environment that leads to (a) the threat of loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following a significant investment of resources” (Hobfoll, 1989, p. 516).

### Service quality

Researchers are interested in the concept of service quality and the concept of quality of service perceived by customers, particularly in the field of marketing services

(Sabadie, 2003; Sirieix & Dubois, 1999), including the hotel sector (Farivar, Khanbashi, & Esmaeelinezhad, 2011; Hayes, Ninemeier, & Miller, 2011).

There seems to be a consensus in the literature around the multidimensional aspect of the concept of service quality (Eiglier & Langeard, 1987; Frost & Kumar, 2000; Getty & Getty, 2003; Grönroos, 1984; Parasuraman, Zeithaml, & Berry, 1985, 1988). Basically, two approaches dominate the literature: Grönroos's approach defines the quality of service in three dimensions (technical quality, functional quality, and image quality) and Parasuraman identifies five dimensions (tangibles, reliability, responsiveness, assurance, and empathy), combined in a variable called SERVQUAL. It should be noted that it has been used by various researchers to measure the dimensions of the quality of internal and even external service (Frost & Kumar, 2000; Varey, 1995). However, although the original SERVQUAL has been revised and changed over time (Parasuraman, Zeithaml, & Berry, 1994), the operationalization of quality dimensions of service raises controversial debates (see, e.g., Galloway, 1998).

In the hotel sector and more broadly in the service industry, the quality of service is inherent in the interaction between contact personnel and the customer (Hoque, 1999). This can be defined from two perspectives: that of the provider and the client. The majority of researchers are interested in the quality of service perceived by the customer and few studies deal with the quality of service perceived by employees in contact work. Researchers (Ross, 1993; Silvestro, Johnston, Fitzgerald, & Voss, 1990) indicate that the quality of service can be evaluated from internal data (perception of personal contact, direction) or external data (customers). Recently, the work of Farivar et al. (2011) demonstrates that the quality of service perceived by customers and employees is the same. In this research, only the perception of the quality of service perceived by the contact employees will be evaluated.

### **Effects of WFC and WLC on job stress**

The theory of roles (Kahn & Byosiére, 1992) contends that WFC should have an effect on job stress because of the rival demands that WFC puts on time, energy, cognitive, psychological, and emotional resources, which are necessary to fulfill both work and family roles (Frone, Russell, & Cooper, 1992). This is consistent with the theory of conservation of resources (Hobfoll, 2002). The interface between work and family, or work and leisure may result either in conflict (that is to say, a tension created by the loss of family resources or leisure, a low emotional support from family or loss of leisure activities that is important for well-being) or an enrichment of roles. Thus, the family or/and leisure may present themselves either as a resource or as a constraint (and a loss of resources).

Consequently, WFC and/or WLC lead to job stress because resources are lost in the process of managing both work and family or leisure, creating higher levels of stress at work. However, as highlighted by St-Onge, Renaud, Guérin, and Caussignac (2002), although the WFC can generate negative stress at work, our

research was more interested in the determinants of work and non-work conflict than its effects. Namasivayam and Zhao (2007) and Yavas et al. (2008) highlight the difficulty for staff in the hospitality industry to combine work and family life, which leads to more stress at work. The investigation by Karatepe, Sokmen, Yavas, and Babakus (2010), conducted in the hotel sector in Turkey, shows a positive relationship between work-family conflict and burnout for frontline staff.

In the same vein, Lin et al. (2013) conducted a research to explore how the delivery system of leisure affects life quality of frontline employees in the hospitality and tourism industry in Taiwan. The results show that work-leisure conflict results in a negative quality of life and satisfaction while the delivery system of leisure influences positively quality of life. More recently the findings of Lin et al. (2014) show that the work-leisure conflict is associated with higher levels of burnout and, hence, low well-being at work. According to Hobfoll (1998, 2014), based on the principal of spiral of loss, the initial loss of resources such as time and energy spent at work can lead to future losses such as loss of leisure or support from family, which in turn could translate into other losses such as job stress. Therefore, the following hypotheses were put forward for this research in the hospitality sector in France:

*Hypothesis 1: WFC is associated positively with job stress.*

*Hypothesis 2: WLC is associated positively with job stress.*

### **WFC as an antecedent of WLC**

According to Hobfoll (2001), an individual with more resources is less vulnerable to resource loss and more prone to resource gains, while those who lack resources are not only vulnerable to loss, but the initial loss creates a future loss, also known as a loss spiral. Work is supposed to be a major obstacle to have enough time for family (Zubrick, Silburn, Burton, & Blair, 2000). Thus, staff that is in contact with customers in the hotel industry, confronted with high demands of work and more particularly to high mental and physical workload, lose their valuable resources (time, energy) and become unable to meet their professional and family roles, resulting in a WFC. This result is consistent with those of Greenhaus and Beutell (1985), Carlson, Kacmar, and Williams (2000), and Zurbrick et al. (2000).

In other words, work-family conflict presents a likely barrier to the valuable use of time within the family. This conflict generates a potential loss of family resources (loss of support from family). This loss of family resources may produce a future loss in leisure resources, which are an essential aspect to improve well-being

Despite the potential effect of leisure on individual well-being, it is a neglected area of studies on stress at work and more specifically in the hotel industry. The following hypothesis explores the mediating effect of WLC in the relationship between WFC and job stress.

*Hypothesis 3: WLC has a mediating effect on the relationship between WFC and job stress.*

## Job stress and service quality

Stress at work may affect the quality of service and employee performance (Hon, 2013). However, few studies have examined this relationship. For example, Varca (1999) showed that stress can decrease the quality of service. Indeed, most research analyzes the relationship between stress (especially burnout) and job performance. For example, the findings of the study of Rod and Ashill (2009) conducted in a call center show that burnout and more specifically emotional exhaustion and depersonalization negatively affect the recovery of service and the treatment of customer dissatisfaction. Williams (2000) indicates, however, that stress has little influence on customer satisfaction with the service. Recently, Hon (2013) has examined, among employees working in the hotel industry, tourism, sales, and marketing in China, the relationship between job stress and performance of the service as an important factor that determines the quality of service. The results demonstrate a significant link between stress and service performance. Chan and Wan (2012) reported that the quality of service for staff having high levels of stress was lower than for the staff that is less stressed. Thus, if more employees are stressed, their performance shall be less in dealing with customer complaints. In the same vein, Kim, Paek, Choi, and Lee (2012) conducted a study in the tourism sector in Korea, and have revealed a negative relationship between emotional exhaustion and service recovery. Although the quality of service is a key concern for hotel companies, very few studies have examined the antecedents and consequences of service quality (Singh, 2000). Therefore, the following hypothesis was proposed:

*Hypothesis 4: Job stress is associated negatively with the perceived quality of service.*

## Mediating role of stress between WFC and WLC and service quality

There has been little research on the mediating role of stress (or burn out) between job demands or job inter-roles and quality of service. For example, the work of Rod and Ashill (2009) concludes that depersonalization (a facet of burnout) mediates the relationship between the demands of work and service recovery. In the same vein, Lang, Thomas, Bliese, and Adler (2007) show that psychological stress (psychological strain) mediates the relationship between job demands and performance. Job stress is a mediator of the effects of WFC and WLC, as work stressors, on performance (Netemeyer et al., 2005). Family and leisure are valued in contemporary society with an increased interest for personal well-being, in a context confronted with globalization, computerization, lack of time, and changes in lifestyles. Thus, “people seem to have forgotten the idea of leisure as part of their day-to-day schedules” (Taneja, 2013, p. 113). This makes leisure time increasingly be in competition with work domains and makes it all the more important to pursue research on WLC. Indeed, theoretical and empirical research in the field of work and leisure has not been numerous (Tsaur, Liang, & Hsu, 2012) and studies on WLC are also sparse (Lin et al., 2014).



According to the theory of conservation of resources, including the spiral of loss of resources, WFC and/or WLC constitute a loss of resources available to individuals and can lead to further losses including loss of well-being. Consequently, the service quality will be degraded leading to the following hypotheses:

*Hypothesis 5: Job stress has a mediating effect on the relationship between WFC and perceived service quality.*

*Hypothesis 6: Job stress has a mediating effect on the relationship between WLC and perceived service quality.*

## Methodology

### *Procedure and sample*

The study was conducted in the hotel industry in France with a sample of staff dealing with customers (receptionists, housekeepers, concierges, hotel restaurant servers, chief of receptionists, chiefs of housekeepers ...). In order for the sample to be as representative as possible of the hotel industry, professional social networks (Viadéo and LinkedIn) were used to contact persons working in different hotel categories, including independent or franchised, located in every region of France. More precisely, advanced search function in LinkedIn and Viadéo were used. Several criteria were researched. Especially, the country (France), the industry (hotel), and the job (receptionists, housekeepers, concierges, hotel restaurant server, etc.). These networks showed a list of employees meeting these criteria. Then researchers made a check of each profile by clicking the name of each person displayed on the site. Each profile displayed the current and previous function of each person. Thus, if the current position of the person fit the types of people wanted by the researchers, a message was sent asking him to participate in the survey. This message included a number of qualifying questions, which included: Are you currently working in the hotel sector in France? Are you in contact with customers? Do you want to participate to this study? This message included also the purpose of the research and a link to the survey. Although these networks permit targeting people's workplaces often posted on each profile, the questionnaire, which included a question on the type of hotel (independent or franchised), has been sent to a random sample of hotels. The majority of responses were from the Viadeo's network.

### *Instrument*

Each participant was asked to complete a short survey questionnaire including four parts. The first part included five questions about WFC and five others about WLC. WFC was measured with five items from the scales of Netemeyer, McMurrain, and Boles (1996). WLC was measured with five items from Wong and Lin (2007). The second part had to do with job stress. This variable was measured with eight questions from the psychological stress measure of Lemyre and Tessier



(2003). The third part contained 10 questions to measure perceived quality of service.

The SERVQUAL scale developed by Parasuraman et al. (1985, 1988) was chosen for two reasons: (1) it has been used and tested in the hotel sector (Al Roussan, 2011; Boon-itt & Rompho, 2012; Chen, 2013; Hartline & Ferrell, 1996; Sarangarajan & Tamilenth, 2012; Wilkins, Merrilees, & Herington, 2007) and (2) researchers use it to test the quality of service perceived by customers (Al Roussan, 2011; Boon-itt & Rompho, 2012; Cronin & Taylor, 1992; Hartline & Ferrell, 1996; Parasuraman, Berry, & Zeithaml, 1991; Parasuraman et al., 1985; Sarangarajan & Tamilenth, 2012; Wilkins et al., 2007) or by personnel, which are in interaction with customers (Babakus, Yavas, Karatepe, & Avci, 2003; Boshoff & Tait, 1996; Chen, 2013; Malhotra, Mavondo, Mukherjee, & Hooley, 2012; Singh, 2000, Vella, Gountas, & Walker, 2009). Therefore, the researcher chose to use the version of the SERVQUAL scale modified by Hartline and Ferrell (1996; 10 items) to suit the measurement of the quality of service perceived by employees. Finally, in the fourth part, participants were asked to complete a short biographical questionnaire that collected demographic information, such as age, gender, marital status, as well as information about their work history, hotel category, and type.

All responses were collected according to a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). We asked people to indicate their age, gender, marital status, hotel category, and hotel type. These variables were statistically controlled in this study. Composite scores for each measure were obtained by averaging scores across items representing that measure. Table 2 shows the correlation matrix, means, and standard deviations of all variables investigated in this study.

## Data analysis

All measures were subjected to confirmatory factor analysis to provide support for the issues of dimensionality, convergent and discriminant validity (Anderson & Gerbing, 1988). The research hypotheses were tested using AMOS version 20 (Arbuckle, 2011). The effective sample size was 648. The results of confirmatory

**Table 1.** Sample characteristics.

Industry	Hospitality
Sample size	648
Hotel classification (%)	0–1 star: 2%; 2 star: 6.2%; 3 star: 17.4%; 4 star: 43.2%; 5 star: 31.2%
Gender (%)	Women: 59.1%; Male: 40.9%
Age (in%)	Under 20 years: 1.7%; 20–30 years: 60.8%; 31–40 years: 29.3%; 41–50 years: 5.4%; > 50 years: 2.8%
Position (in%)	Server: 7.3%; Chief of front office: 15.7%; Concierge: 7.7%; Housekeeper: 8.3%; Chief of housekeeper: 9.3%; Butler: 9.4%; Receptionist: 37%; Night receptionist: 5.2%
Time worked per week (%)	Less than 35 hours: 4.3%; 35–39 hours: 22.1%; 40–44 hours: 32%; 45–50 hours: 17.6%; over 50 hours: 24%

**Table 2.** Means, standard deviations, and correlations.

Variable	M	SD	1	2	3	4	5	6	7	8	9
Age	2.47	0.75	—								
Gender	1.59	0.49	−0.173**	—							
Marital status	0.45	0.50	0.175**	0.023	—						
Hotel type	1.44	0.45	0.153**	−0.098*	−0.103**	—					
Hotel category	1.75	0.44	−0.016	−0.193**	0.095*	−0.192**	—				
WFC	3.69	1.11	0.051	0.083*	0.183**	−0.111**	0.126**	0.89			
WLC	3.39	1.12	−0.015	0.114**	0.184**	−0.239**	0.093*	0.681**	0.88		
Job stress	3.35	1.05	−0.027	0.137**	0.167**	−0.116**	0.116**	0.595**	0.56**	0.92	
Service quality	3.94	0.85	−0.038	−0.077	0.017	0.049	−0.03	−0.15**	−0.13**	−0.2**	0.94

Note. Cronbach's alpha appears along the diagonal. Two-tailed tests.

\* $p < 0.05$ ; \*\* $p < 0$ .

factor analysis are shown in Table 3. The reliability of the scales selected has been tested by calculating composite reliability (CR) of Joreskog.

## Results

A total of 2,150 emails were sent to staff, 648 were returned and all had complete responses across all study variables, yielding a return rate of 30.13%. The characteristics of the sample are presented in Table 1.

The majority of the respondents are staff in interaction with customers (heads of reception, receptionists, housekeepers ...), working in 4-star hotels (74.4%), franchised (56%) or independent (44%), relatively young (60.5% are between 20 and 30 years) and they work from 40 to 44 hours per week (32%). The results of preliminary analyses are shown in Table 2. This table presents mean, standard deviations, and correlation between variables of the model. Also, Cronbach's alpha appears along the diagonal.

## Measurement model

The items of each scale were subjected to a series of confirmatory factor analyses for a rigorous psychometric assessment (Jöreskog & Sörbom, 1996). To assure the reliability and validity of the questionnaires, the measurement model was assessed with all 648 effective samples and examined by maximum likelihood. The initial results of the confirmatory factor analysis provided low model fit statistics. Therefore, according to the modification indices in Amos, several items were deleted<sup>2</sup> because of low standardized loadings ( $<0.50$ ), high standard residues, or correlation measurement errors. Also, covariances between measurement errors were added. Specifically, two items from job stress and one item each from the work-leisure conflict and perceived quality of service were removed from further analysis.

Item reliability was confirmed by a standardized factor loading between 0.48 and 0.9, indicating that the significance level ( $t > 1.96$ ) is achieved. In the analysis of constructs reliability (Table 3) of the dimensions, composite reliability exceeded 0.70 (range, 0.87–0.94), which indicated adequate internal consistency. Moreover,

**Table 3.** Reliability of scales selected.

Variable		IR	CR	AVE
Work-family conflict	The demands of my work interfere with my home and family life.	WFC1	0.9	0.65
	The amount of time my job takes up makes it difficult to fulfill family responsibilities.	WFC2		
	Things I want to do at home do not get done because of the demands my job puts on me.	WFC3		
	My job produces strain that makes it difficult to fulfill family duties.	WFC4		
Work-leisure conflict	Due to work-related duties, I have to make changes to my plans for family activities	WFC5	0.87	0.67
	I do not have enough time for leisure activities because of my job.	WLC1		
	I do not have enough time to participate in leisure activities with my family/friends because of my job.	WLC2		
	I do not have energy to participate in leisure activities because of my job.	WLC3		
Job stress	I am not able to participate in leisure activities because of my job.	WLC4	0.92	0.64
	I feel calm.	JS1		
	I feel rushed; I do not seem to have enough time.	JS2		
	I have physical aches and pains: sore back, headache, stiff neck, stomachache.	JS3		
	I feel preoccupied, tormented, or worried.	JS4		
	I feel confused; my thoughts are muddled; I lack concentration; I cannot focus.	JS5		
	I feel a great weight on my shoulders.	JS7		
	I feel stressed.	JS9		
Service quality	I provide fast service to my customer.	SQ1	0.94	0.67
	I'm not too busy to meet customer demands.	SQ2		
	Guests of this hotel can trust me.	SQ3		
	Guests of this hotel complete their transactions with me safely.	SQ4		
	I treat all customers with courtesy.	SQ5		
	I give individual attention to customers.	SQ7		
	I give personal attention to customers.	SQ8		
	I have the customers' best interests at heart.	SQ9		
	I am able to understand the specific needs of customers.	SQ10		0.88

Note. SEF: Standardized coefficient; IR: Item reliability; CR: Composite reliability; AVE: Average variance extracted.  
 $p < 0.05$ .

in the assessment of convergent and discriminant validity, the average variance extracted (AVE) is used to estimate the average explained variance of measurement to scales; values above 0.5 signify a good convergent validity (Fornell & Larcker, 1981). In Table 3, AVE of each dimension exceeded 0.05 (range, 0.64–0.8).

## Structural model

To test the effects of mediation, the method of indirect effects test based on a bootstrap analysis (Preacher & Hayes, 2004) was employed. This method overcomes the limitations of the approach of Baron and Kenny (1986) traditionally used in the analysis of mediation, specifically the problem of statistical power (Edwards & Lambert, 2007) and the decrease in type I error (Preacher & Hayes, 2008).

The analyses are based on 2,000 replications generated by the bootstrap method with a confidence interval of 95%. These analyses were complemented by a Sobel test of indirect effects in case of normal distribution (Sobel, 1982). All of these analyses were conducted using AMOS v. 20 software.

Goodness-of-fit index (GFI) calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick and Fidell, 2007, cited in Hooper et al., 2008); comparative fit index (CFI) considers sample size (Byrne, 1998); root mean square error of approximation (RMSEA) means fit the population covariance matrix (Byrne, 1998). The results in Table 4 indicate that models 1 and 2 fit the data well (e.g.,  $\chi^2/\text{d.f.} = 4.283$ ; GFI = 0.9; CFI = 0.87; RMSEA = 0.07 in model 1).

## Test of research hypotheses

All of the five hypotheses were supported. These results will be presented below.

H1 stated that WFC is positively associated with job stress. This hypothesis is supported. As predicted, Table 5 shows that WFC has a significant and positive effect on job stress ( $\beta = 0.626$ ,  $p = 0.001$ ), explaining 35% of the variance in job stress. When there is a higher level of work-family conflict, the level of job stress increases.

H2 stated that WLC is positively associated with job stress. This hypothesis is supported. Results demonstrated that WLC increases job stress because it has a significant and positive effect on job stress ( $\beta = 0.602$ ,  $p = 0.001$ ), explaining 35% of the variance in this variable. That is, when the level of work-leisure conflict is high, the level of job stress increases.

**Table 4.** Results of the confirmatory factor analysis.

Index	$\chi^2/\text{d.f.}$	GFI	RMSEA	NFI	CFI
Model 1 ( $R^2 = 0.62$ in WLC, $R^2 = 0.62$ in job stress)	4.283	0.90	0.07	0.90	0.92
Model 2 ( $R^2 = 0.35$ in job stress and $R^2 = 0.38$ in perceived quality of service)	4.485	0.89	0.07	0.89	0.87

**Table 5.** Results of bootstrap: Model 1: WLC as mediator.

Variable	Standardized parameter estimates							
	WLC				Job stress			
	$\beta$ direct effect	t-Values	$\beta$ direct effect	t-Values	Indirect effect	Type of mediation	Z-values	P
Age	-0.06*	-1.969	-0.024	-0.738	—	—		
Gender	0.053 <sup>ns</sup>	1.755	0.067*	2.101	—	—		
Marital status	0.032 <sup>ns</sup>	1.064	0.057 <sup>ns</sup>	1.788	—	—		
Hotel type	-0.145***	-4.756	0.03 <sup>ns</sup>	0.897	—	—		
Hotel category	0.038 <sup>ns</sup>	1.253	0.075*	2.353	—	—		
WFC	0.77***	16.21	0.39	6.017	0.232***	Partial	4.376	0.00
WLC	—	—	0.301***	4.525	—	—		

Note.  $N = 648$  (standardized coefficients are reported). Gender was coded as a binary variable (0 = male and 1 = female). Marital status was coded as a binary variable (0 = single or divorced and 1 = married). Hotel type was also coded as a binary variable (0 = chain hotel and 1 = independently/family-owned and -operated hotel) and hotel category was coded as (0 = one, two, and three stars; 1 = four stars and 2 = five stars).

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

H3 stated that WLC has a mediating effect on the relationship between WFC and job stress. This hypothesis is supported. The results of the bootstrap presented in Table 5 show that the indirect effect of WFC, through WLC, on job stress ( $\beta = 0.232$ ,  $p = 0.001$ ) is significant. The Sobel test reaffirms this finding ( $z = 4.376$ ,  $p = 0.001$ ). As shown in Table 5, the impact of WFC on stress after introducing WLC is still significant ( $\beta = 0.39$ ,  $p = 0.001$ ). The results indicate that WFC explained large portions of the variance in WLC ( $R^2 = 0.62$ ) and in job stress ( $R^2 = 0.44$ ). Collectively, these results indicate that WLC partially mediates the impact of WFC on job stress. In other words, when the level of work-family conflict is high, the level of work-leisure conflict increases and this will in turn increase the level of job stress. WLC will thus transmit the effect of WFC on job stress.

H4 stated that job stress is associated negatively on perceived quality of service. This hypothesis is supported. The findings show that job stress is significantly and negatively related to perceived quality of service ( $\beta = -0.2$ ,  $p = 0.001$ ). When the level of job stress is high, the level of quality of service decreases. In other words, more stress leads to less quality.

H5 stated that job stress has a mediating effect on the relationship between WFC and perceived service quality. This hypothesis is supported. The bootstrap analysis shown in Table 6 reveals that the indirect effect of WFC on perceived quality of service, through job stress, is significant ( $\beta = -0.118$ ,  $p = 0.01$ ), explaining 7% of the variance in perceived quality of service. In addition, the Sobel test indicates the same result ( $z = -3.167$ ,  $p = 0.001$ ). This result signifies that when the level of work-family conflict is high, the level of job stress increases causing a decrease in the level of quality of service. In other words, the job stress will transmit the effect of WFC on quality of service.

H6 stated that job stress has a mediating effect on the relationship between WLC and perceived service quality. This hypothesis is supported. Results of the indirect effect demonstrated that WLC has an indirect effect on perceived

**Table 6.** Results of bootstrap: Model 2 job stress as mediator.

Variable	Standardized parameter estimates						Test of Sobel	
	Job stress		Perceived quality of service					
	$\beta$ direct effect	t-Values	$\beta$ direct effect	t-Values	Indirect effect	Type of mediation	Z-Values	P
Age	−0.042	−1.283	0.063 <sup>ns</sup>	−1.57	—	—		
Gender	0.083 <sup>**</sup>	2.544	−0.075 <sup>*</sup>	−1.838	—	—		
Marital status	0.068 <sup>*</sup>	2.102	0.038 <sup>ns</sup>	0.952	—	—		
Hotel type	−0.015 <sup>ns</sup>	−0.449	0.037 <sup>ns</sup>	0.93	—	—		
Hotel category	0.084 <sup>**</sup>	2.564	0.011 <sup>ns</sup>	0.263	—	—		
WFC	0.626 <sup>***</sup>	14.282	−0.032 <sup>ns</sup>	−0.578	−0.118 <sup>**</sup>	Complete	−3.167	0.00
WLC	0.602 <sup>***</sup>	13.33	−0.05 <sup>ns</sup>	−0.876	−0.144 <sup>***</sup>	Complete	−3.748	0.00
Job Stress	—	—	−0.26 <sup>***</sup>	−3.4	—	—		

Note.  $N = 48$  (standardized coefficients are reported).

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

quality of service with job stress as a mediator ( $\beta = -0.144$ ,  $p = 0.001$ ) and the Sobel test supports this finding ( $z = -3.748$ ,  $p = 0.001$ ). This result means that when the level of work-leisure conflict is high, the level of job stress increases, which in turn will diminish the level of quality of service decreases. Thus, the job stress will transmit the effect of WFC on quality of service.

## Discussion

The results of this study show that WFC and WLC could influence frontline workers' job stress. These results are consistent with the first objective of this research, which stated that these two types of conflict influence stress. This finding supports the assumption of the theory of roles (Kahn & Byosiore, 1992), indicating that WFC should have an effect on job stress. Additionally, the relationship between inter-role conflict and job stress is consistent with the theory of conservation of resources (Hobfoll, 2002). Faced with high demands of work, staff in the hospitality industry lose valuable resources (time, physical and mental energy) and become unable to meet their professional and family roles or leisure life, resulting in a work-family conflict and/or work-leisure conflict. These conflicts create a potential loss of resources (including family stability and leisure life), which develops stress.

These results are consistent with the theory of scarcity of resources and the principle of "spiral of loss of resources" of Hobfoll (1998). This result also corresponds to Namasivayam and Zhao (2007) and Yavas et al. (2008) highlighting that WFC leads to more stress at work. They converge with the investigation by Karatepe et al. (2010), showing a positive relationship between WFC and burnout for frontline staff.

As to the link between WLC and job stress, it is consistent with the finding of Lin et al. (2014) indicating that the work-leisure conflict is associated with a higher level of burnout and, hence, low well-being at work. Also, this research finds that work-leisure conflict partially mediates the impact of WFC

on job stress. This result is also in line with the theory of conservation of resources and the principle of “spiral of loss of resources” of Hobfoll (1989, 1998, 2011, 2012). This finding is interesting. This loss of family resources may produce a future loss; leisure resources are an essential factor to increase well-being at work and away from work. In other words, the WLC transmits the effects of WFC on stress and plays a mediating role. This result responds to the second objective of this study.

Another interesting result of this study is the relationship between job stress and service quality, which was a third objective of this investigation. The results indicate that job stress has a negative influence on the quality of service in the hospitality industry. The more employees are stressed, the more their performance will be reduced in dealing with customer complaints and in offering high quality of service. This result is in conformity with Varca (1999) who showed that stress can decrease the quality of service. Similarly, the findings of Rod and Ashill (2009) in a call center show that burnout and more specifically emotional exhaustion and depersonalization negatively affect service recovery and the treatment of customer dissatisfaction. Chan and Wan (2012) indicated that the quality of service for staff having high levels of stress was lower than for less stressed staff. In the same vein, Kim et al. (2012) have revealed a negative relationship between emotional exhaustion and service recovery. Recently, Hon (2013) demonstrated a significant link between stress and service performance. The results of Williams (2000) indicate, however, that stress has little influence on customers’ satisfaction with the services.

Finally, this study indicates that WFC and WLC have negative effects on service quality through job stress. This was the fourth objective of this research. This finding is consistent with the conclusion of Rod and Ashill (2009), indicating that depersonalization mediates the relationship between the demands of work and service recovery. In the same vein, the results of Lang et al. (2007) show that psychological stress (psychological strain) mediates the relationship between job demands and performance. It also confirms those of Netemeyer et al. (2005) showing that job stress is a mediator of the effects of WFC and WLC as work stressors on performance. The theory of Hobfoll (1998) allows to explain this finding. Faced with a loss of resources because of the WFC and WLC, which result in stress at work, employees adopt defensive strategies to protect their resources and to not fall into situations of malaise at work. These strategies include disengagement, which leads to reduced performance at work, including the perceived quality of service.

## Conclusions and implications

The findings of the current study have important implications for theorists and practitioners as it has examined the antecedents and underlying mechanisms that lead to increased job stress and decreased perception of the quality of service. The results can be useful for many reasons. First, the results of this study reveal that WFC and WLC produce stress among front line employees in the hotel industry.



Indeed, staff in contact with customers has a crucial role to play in providing exceptional service and that is a significant competitive advantage in the hospitality industry. Therefore, it seems appropriate to focus on the effects of working conditions, and more specifically the effects of WFC and WLC on job stress and, in turn, on perceived quality of service. Indeed, despite the potential effect of leisure on individual well-being, it is a neglected area of studies on stress at work and more specifically in the hotel industry. This research has filled this gap. Additionally, this study is the first to investigate the effects of WFC and WLC on the quality of service via stress. This can increase knowledge in this field by supporting the theory of conservation of resources of Hobfoll (1989, 1998) and its principles, such as the loss of resources.

The findings of this study can also be helpful for practitioners. To alleviate the WFC and WLC, as job stressors, human resource managers or hotel managers must attempt to implement measures facilitating the reconciliation between work and personal life. More specifically, family friendly practices (child care in the workplace, holidays for personal or family reasons, flexible hours, and voluntary part-time) could reduce the WFC and the resulting stress. Employees spend a lot of time at work in the hospitality industry; thus, they need to have more time to fulfill their private obligations. For example, sharing information between managers and employees about how to reallocate their work-related problem-solving behaviors in their home (Karatepe & Kilic, 2015) can be useful to help workers to manage work and family life. Similarly, human resource departments can establish leisure options such as “extended vacation time, compensatory time-off, and subsidized recreation” (Lin et al., 2013, p. 185) to offer an appropriate life-family balance, to promote work-leisure balance, and to help employees mitigate work-family-leisure conflict, which can decrease job stress (Lin et al., 2014), and improve quality of service provided by employees in the hospitality and tourism industry.

To decrease WLC, many hotels already have leisure facilities and could make them available to their employees when there are less client's present, especially during low season. Also, developing and implementing practices such as a reduction in working time could give workers more time for leisure activities and/or family life. Furthermore, while the technological developments make it possible to communicate more easily with other people (friends, family, etc.), “virtual workplaces” (Taneja, 2013, p. 119) could be another interesting measure to facilitate the balance between work and leisure life. These different practices could be installed in hotel chains, which have normally enough money, but what about smaller independent hotels with lower budgets for these measures? Managers in these hotels should be more supportive to the questions of work and family or private life. For example, meeting not only with married employees with or without children who suffer from WFC and stress, but even with single, childless, and widowed employees who often have family and social commitments to their parents, siblings, or relatives who may even have greater responsibilities placed on them, could help to understand their difficulties and allow them to feel that management supports

them and cares about their well-being. Managers can also give more autonomy to employees who have urgent requests (go pick up a child at daycare, illness of a child) to reorganize their working hours and private life.

Likewise, employers could give more freedom, flextime, or part-time to all employees to choose the period of leave or vacation that best suits their needs. This would allow parents to spend the holidays with their children or at least take care of them during that period if they do not have money to send them to daycare elsewhere. This could also permit employees who need care for the elderly or their spouse, or even siblings or relatives, and who do not have children, to accomplish responsibilities for their own aging, elderly parents or relatives. This could be effective, especially for firms that do not have budgets to invest in childcare in the workplace. These practices can be considered as a resource to help employees to gain more resources and to reallocate more time and more energy to fulfill their family obligations and allow employees to perceive less conflict between work and private life, and benefit from a better well-being at work. These practices can be useful even if employees do not have responsibilities for their elderly parents, children, or relatives because “although some of these programs may not be applicable to all employees, if a variety of programs are made available, an employee will hopefully take advantage of them if and when needed” (Fiksenbaum, 2014, p. 667).

While these policies may be seen to be expensive, the consequences of WFC and/or WLC, including burnout and poor quality of service, are all the more expensive for the individual and the organization. For example, depersonalized employees are likely to treat customers as if they were impersonal objects and not to really care what happens to them. Indeed, following the results of this study, it appears that degradation of the quality perceived by employees can cause a loss of meaning at work and contribute to their disengagement and social dysfunction, which contribute to customer dissatisfaction and loss of work performance, including perceived quality of service. Hotel managers need to realize that employee satisfaction is critical to customer satisfaction. It is therefore essential that hotel managers treat their employees as internal customers by providing a supportive work environment with social support, rewards, and advancement. In addition, providing family-friendly measures allow an organization to be competitive for attracting and retaining engaged and productive employees (Fiksenbaum, 2014).

This research is not without limits, and these constitute possible avenues of research. The evaluation of the quality of service perceived by customers and managers could enrich the results. In the same vein, a multidimensional view of the quality of service could enable us to refine the managerial recommendations. Similarly, the quantitative methods used in this study may not have revealed the views of employees on some subjects. Future studies could realize in-depth interviews to close this gap. Future research should test the model of research in other business sectors for external validation. Additionally, to confirm cross validation of scales, future research is recommended to verify the validity and reliability by two-phase

sampling, the first being exploratory factor analysis in a small sample, and the next proceeding in a large sample with confirmatory factor analysis.

Finally, the sample is not representative of all the hotel industry even if the questionnaire was administered throughout France, and for all types of hotels, including luxury, chain, and independent hotels. However, the majority of responses are from 4- and 5-star hotels although the sample was random. This is a limit of the data collection method, which was done through LinkedIn and Viadéo. Apparently, very few people working in 2- or 3-star hotels are on these networks contrarily to people working in 4- and 5-star hotels, which are very numerous. We need to conclude that it would have been desirable to have more questionnaires from 2- and 3-star hotels. Likewise, only employees working in hotel restaurants were contacted, but the industry also includes independent restaurants. It would be interesting to investigate this segment in future research. Also if one wishes to obtain information on the whole sector, this would require sending the survey to hotel managers. In this research, the focus was only on personnel, which is in contact with customers. It could be interesting to investigate managers and to compare them with other categories since their working conditions are very different.

## Notes

1. WFC: work family conflict; WLC: work leisure conflict.
2. Items deleted: WLC5 = I have never been in a suitable frame of mind to participate in leisure activities because of my job; JS6 = I feel full of energy and keen; JS8 = I have difficulty controlling my reactions, emotions, moods, or gestures; SQ6 = I am able to answer customer questions.

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